

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/010840

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ C10M141/10, 169/04//(C10M141/10, 129:18, 129:68, 137:10)
 (C10M169/04, 105:36, 105:38, 129:72, 129:74, 137:10)
 C10N30:00, 30:02, 30:06, 30:10, 40:30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ C10M141/10, 105/36-105/40, 129/00-129/95, 137/00-137/16, 169/04,
 C10N30:00-30:02, 30:06, 30:10, 40:30

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2004
Kokai Jitsuyo Shinan Koho	1971-2004	Jitsuyo Shinan Toroku Koho	1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2002-97486 A (Nippon Mitsubishi Oil Corp.), 02 April, 2002 (02.04.02), (Family: none)	1-4
Y	WO 01/02519 A1 (Nippon Mitsubishi Oil Corp.), 11 January, 2001 (11.01.01), & AU 200058480 A & BR 200012242 A & CN 1364189 A & EP 1205534 A1 & MX 2002000043 A	1, 4 5-9
X	JP 2002-38175 A (Nippon Mitsubishi Oil Corp.), 06 February, 2002 (06.02.02), & AU 200171071 A & CN 1449435 A & KR 2003020401 A & US 2003/0166478 A1 & WO 02/08365 A1	1, 4 5-9
Y		

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"E" earlier application or patent but published on or after the international filing date

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"O" document referring to an oral disclosure, use, exhibition or other means

"&" document member of the same patent family

"P" document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search
21 October, 2004 (21.10.04)Date of mailing of the international search report
09 November, 2004 (09.11.04)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

INTERNATIONAL SEARCH REPORT

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PCT/JP2004/010840

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2003-96481 A (Nippon Oil Corp.), 03 April, 2003 (03.04.03), (Family: none)	5-9
X	JP 8-48990 A (Nippon Oil Co., Ltd.), 20 February, 1996 (20.02.96), & BR 9503535 A & CA 2155166 A1 & DE 69509716 T2 & EP 699742 A2 & ES 2131240 T3 & JP 8-48986 A & US 6251300 B1	1, 4-8
X	JP 2000-256692 A (Idemitsu Kosan Co., Ltd.), 19 September, 2000 (19.09.00),	1, 5, 8
	& EP 1167495 A1 & JP 2000-282076 A	
	& KR 2002010121 A & WO 00/53704 A1	